

Off to a Good Start

Research on the risk factors for early school problems and selected federal policies affecting children's social and emotional development and their readiness for school



THE CHILD MENTAL HEALTH
FOUNDATIONS *and* AGENCIES NETWORK

Off to a Good Start





Off to a Good Start

Research on the Risk Factors for
Early School Problems

and

Selected Federal Policies
Affecting Children's Social
and Emotional Development and
Their Readiness for School

by

Lynne C. Huffman, Sarah L. Mehlinger, and Amy S. Kerivan

and

Doreen A. Cavanaugh, John Lippitt, and Otrude Moyo

Commissioned by



THE CHILD MENTAL HEALTH
FOUNDATIONS *and* AGENCIES NETWORK

Huffman, L.C., Mehlinger, S.L., & Kerivan, A.S. Risk factors for academic and behavioral problems at the beginning of school, and Cavanaugh, D.A., Lippitt, J., & Moyo, O., Resource guide to selected federal policies affecting children's social and emotional development and their readiness for school. In *Off to a good start: Research on the risk factors for early school problems and selected federal policies affecting children's social and emotional development and their readiness for school*. Chapel Hill, N.C.: University of North Carolina, FPG Child Development Center.

Support for this publication was provided in part by the Ewing Marion Kauffman Foundation (Grant #200003738).

Illustrations by Kelsi Nechol Cooper, age 8.

Contents

ix	Preface
xiii	Acknowledgments
xv	Abbreviations Used in This Book

Paper 1

1 Risk Factors for Academic and Behavioral Problems at the Beginning of School

Lynne C. Huffman, Sarah L. Mehlinger, and Amy S. Kerivan

3	Introduction
8	Methods
10	Results
10	Risk Factor Research
10	Individual Ontogeny
10	Low Birth Weight and Neurodevelopmental Delay
10	Other Medical Problems
11	Psychophysiological Markers of Risk
11	Cognitive Deficits
12	Temperament and Personality Dimensions
13	Early Behavior and Adjustment Problems
14	Age at School Entry
14	Protective Factors
14	Microsystems—Family and Peers
14	Family Composition
14	Low Level of Maternal Education
15	Parental Substance Abuse
16	Problematic Maternal Relationship History
16	Parental Psychopathology
16	Poor Parenting Practices
17	Maltreatment
18	Insecure Attachment
18	Difficulties with Peer Relationships
18	Protective Factors
19	Microsystems—Day Care and School
19	Nonmaternal Care
19	Characteristics of Kindergarten and First-grade Classes
19	Relationships with Teachers
20	Protective Factors

Contents

20	Exosystems—Neighborhood, Community, Socioeconomic Status
20	Immigrant Status
20	Minority Status
20	Low Socioeconomic Status
21	Protective Factors
22	Macrosystems
22	Intervention Research
22	Individual Ontogeny
22	Neurodevelopmental Delay, Low Birth Weight, and Other Medical Problems
23	Microsystems—Family and Peers
23	Quality of Mother-Child Attachment
23	Maltreatment
24	Exosystems—Neighborhood, Community, Socioeconomic Status
24	Minority Status
24	Low Socioeconomic Status
24	Carolina Abecedarian Project
25	Project CARE
25	The High/Scope Perry Preschool Study
25	The Mother-Child Home Program (MCHP)
25	Head Start
26	The Child Parent Center (CPC) Program
26	Macrosystems
27	Discussion
27	Studies Meeting Criteria for Scientific Excellence
28	Causal Risk Factors
29	Multiple Risk Factors
30	Protective Factors
31	Understanding Intervention Studies
33	Directions for Future Risk Factor and Intervention Research
33	Risk Factor Research Design and Methodology
33	Multiple and Confounding Risks
34	Exploration of Known Risk Factors
34	Risk Factor Relevance and Interpretation of Outcomes
36	Initial Implications for Policy
37	Conclusions and Major Lessons Learned
41	References

51 Appendix: Tables

53	Table 1. Neurodevelopmental Constructs for Preschool, Kindergarten, and Grade One
54	Table 2. Risk for Difficult Entry into School: Literature and Review Records
58	Table 3. Risk for Difficult Entry into School: Specific Papers
77	Table 4. Risk for Difficult Entry into School: Review Papers
83	Table 5. Interventions That Decrease Risk for Difficult Entry into School: Specific Studies
90	Table 6. Interventions That Decrease Risk for Difficult Entry into School: Review Papers
93	Table 7. Additional Criteria of Excellence

Paper 2

95 Resource Guide to Selected Federal Policies Affecting Children's Social and Emotional Development and Their Readiness for School

97	Introduction
99	Methodology
102	Selected Federal Policies
102	Child Health
102	Maternal and Child Health Block Grant
107	Healthy Start
109	Social Security Act, Title XIX: Medicaid
115	Early and Periodic Screening, Diagnosis, and Treatment Program
118	State Children's Health Insurance Program
121	Starting Early Starting Smart
123	Community Mental Health Services Block Grant Program
125	Discussion of Federal Child Health Policies
128	Early Childhood Care and Education
128	Head Start
132	Early Head Start
134	Child Care and Development Block Grant
138	Elementary and Secondary Education Act, Title I, Part A
139	Elementary and Secondary Education Act, Title I, Part B: The Even Start Family Literacy Program
140	Individuals with Disabilities Education Act, Part B: The State Grant Program for Children with Disabilities
142	Individuals with Disabilities Education Act, Part B: Pre-School Grants Program
143	Individuals with Disabilities Education Act, Part C: Infants and Toddlers with Disabilities Program
147	Discussion of Federal Early Childhood Care and Education Policies

151	Family Support and Child Welfare
151	Family and Medical Leave Act
154	Social Security Act, Title IV-B, Subpart 1: Child Welfare Services Program
157	Social Security Act, Title IV-B, Subpart 2: Promoting Safe and Stable Families
158	Child Abuse Prevention and Treatment Act
163	Social Security Act, Title XX: Social Services Block Grant
165	Social Security Act, Title IV-E: Foster Care and Adoption Assistance
166	Adoption and Safe Families Act
168	Discussion of Federal Family Support and Child Welfare Policies
173	Child Nutrition
173	Food Stamp Program
175	Special Supplemental Nutrition Program for Women, Infants and Children
177	Child and Adult Care Food Program
178	Discussion of Federal Child Nutrition Policies
179	Socioeconomic Status
179	Temporary Assistance for Needy Families
182	Supplemental Security Income
185	Earned Income Tax Credit
186	Dependent Care Tax Credit
187	Discussion of Federal Socioeconomic Status Policies
189	Conclusions: Toward a System of Early Childhood Care
190	What Is the Current State of Affairs?
190	Opportunities Exist
191	Some Challenges Exist
192	Issues in Creating a System of Early Childhood Care
196	Final Thoughts
197	References
205	Appendix: Tables
207	Table 7. Selected Federal Child Health Policies Affecting Children's Emotional and Social Development and Readiness for School
211	Table 8. Selected Federal Early Childhood Care and Education Policies Affecting Children's Emotional and Social Development and Readiness for School
215	Table 9. Selected Federal Family Support and Child Welfare Policies Affecting Children's Emotional and Social Development and Readiness for School
218	Table 10. Selected Federal Nutrition Policies Affecting Children's Emotional and Social Development and Readiness for School
220	Table 11. Selected Federal Socioeconomic Policies Affecting Children's Emotional and Social Development and Readiness for School

Preface

Social transitions, such as starting school, represent essential developmental points that move children toward divergent health and adjustment outcomes. Children who do not manage the first years of elementary school smoothly have greater problems with later behavioral, emotional, academic, and social adaptation. Research clearly documents the predictive power of cognitive impairment and neurodevelopmental disabilities for later academic failure. We suggest, however, that behavioral and social risk factors appear to be important predictors of poor school outcome as well. Medical care, early childhood care and education, child protection, and behavioral health systems play important roles in the identification, evaluation, and treatment of children with problems that emerge prior to and during the early school years. A shared goal for these systems is early identification and intervention—describing and assisting the ‘at-risk’ child and his or her family, thereby eliminating or reducing academic and behavioral difficulties during the beginning of school. Far-reaching achievement of such goals can be facilitated by the establishment, implementation, and monitoring of appropriate federal and state policies.

To examine the responsiveness of federal policies to the known risk and protective factors for academic and behavioral problems at the beginning of school, the Child Mental Health Foundations and Agencies Network, a group composed of representatives from the federal government and national foundations, commissioned the two companion papers included in this volume.

The first paper, “Risk Factors for Academic and Behavioral Problems at the Beginning of School” (Huffman, Mehlinger, and Kerivan), reviews the last two decades of relevant scientific literature in order to identify risk factors associated with problems during entry into school. OVID Medline and Internet GratefulMed literature searches were done, using search terms of “school entry,” “kindergarten,” “nursery schools,” “special education,” “transition to school,” as well as “risk,” “protective,” and “intervention.” The search yielded articles published between 1980 and 1998, and was limited by age (0–17 years), document (journal articles only, including review, theoretical, and commentary articles), and language (published in English). Within this set of articles, particular attention was paid to behavioral and social risk factors examined via longitudinal designs. A longitudinal approach allowed the consideration of causal risk factors for a defined set of outcomes in kindergarten and first grade (approximate ages 5–7 years). Risk factors as well as protective factors were described at individual, family and peer, neighborhood and community, and sociocultural levels. Salient outcomes included impaired language, motor, and social capacities, special education status, grade retention, behavioral problems, and learning disabilities.

Both basic and intervention studies indicate that risk for children’s problems during early elementary school is associated with several identified factors (e.g.,

low birth weight, low IQ, early behavior and relationship problems, and low socioeconomic status). Multiple risk factors place children at greater than chance odds of failing as they begin school; this suggests that early interventions must be broadly based and not merely directed at a single target risk factor. Fewer studies have focused on protective factors—those factors associated with improved outcomes for at-risk groups of children.

The use of rigorous criteria to identify causal risk and protective factors can improve the predictive power of future research. In addition, an adequate understanding of the scientific literature on risk is critical for building more evidence-based policies that have the potential to affect the lives of large numbers of children. With increasing national attention to the needs of children and given accelerated knowledge in the basic neurosciences about developmental neural plasticity, a review of the scientific literature on risk for problems in early school years vis a vis federal policies was timely.

The second paper, entitled “Resource Guide to Selected Federal Policies Affecting Children’s Social and Emotional Development and Their Readiness for School” (Cavanaugh, Lippitt, and Moyo), identifies selected federal policies that address the identified risk factors in Huffman, et al. Federal policies are examined in five domains: child health, early childhood care and education, family support and child welfare, child nutrition, and socioeconomic status.

This review found that the federal government is making a major contribution to the emotional and behavioral health of young children and their families through Medicaid expansions, the passage of the State Child Health Insurance Program, and demonstration programs such as Starting Early Starting Smart. While some federal policies are complementary, many overlap, illustrating both the complexity of collaborative efforts on the part of the federal agencies and the diversity of partnerships supporting the behavioral and emotional health of young children. Current changes in the organization and financing of health care delivery, coupled with the complex interaction of federal policies that address young children, affect the efficiency and effectiveness of federal policy responses to the identified risk factors.

Emotional and behavioral health care for young children cuts across a number of disciplines. The multiplicity of federal agencies addressing similar concerns creates fragmentation of resources and engenders difficulty in coordinating efforts to ensure that all young children’s emotional and behavioral health needs are met. Equally significant are the gaps in federal policy and the inadequacy of federal programs to reach all young children.

A seamless, multidisciplinary system of early childhood care that transcends traditional federal policy boundaries must be designed and implemented. Research is needed on new models for organizing, financing, and delivering behavioral health care for young children, and efforts must be made to translate research findings into practice.

In our shared professional experience, the focus on young children and their families has never been greater. The mental health and emotional development of children have received the attention of the president, the vice president, and

their wives. The White House Conference on Mental Health included an acknowledgement that the emotional development and mental health of children are directly affected by early childhood experiences. Child development and early childhood educational experts have asserted the importance of young children's relationships with significant adults for some time; advances in neuroscience and infant brain development now provide additional explanation and support for these conclusions.

Numerous reports on these issues have been written in the past, yet the problems persist. The current opportunity to implement a comprehensive early childhood policy should not be missed. It is essential to build on past efforts and to identify champions in the highest levels of government, philanthropy, and business. Leaders in the social and medical sciences must join those in other sectors of society to emphasize the importance of early childhood experience on future success both in education and in the workplace. Only with the commitment of resources from the broad range of involved agencies and foundations, and the collaboration of scientists with policy makers, can we hope to improve the chances for at-risk children to succeed as they begin school.

Doreen Cavanaugh and Lynne Huffman

Acknowledgments

We thank the Child Mental Health Foundations and Agencies Network (FAN) for the support of these reviews and background papers. Many individuals lent their skills to the development of our paper. We thank Kirsten Hill and Jenny James for their able assistance with the preparation of the manuscript. We thank Robert Emde, Byron Egeland, and E. Jane Costello, as well as reviewers from FAN, for their thoughtful suggestions and comments on this paper. Finally, we thank Kimberly Hoagwood and Peter Jensen, our colleagues from the National Institute of Mental Health (NIMH), for their perceptive comments.

Lynne C. Huffman

Sarah L. Mehlinger

Amy S. Kerivan

The authors are grateful for the support of the FAN and the NIMH, as well as the Robert Wood Johnson Foundation, the Irving Schneider family, the Heller School National Maternal and Child Health Policy Center, and the Heller School Family and Child Policy Center. We thank Kimberly Hoagwood, Peter Jensen, Ruby Hearn, Terrance Keenan, Ruby Takanishi, G. Reid Lyon, Kathryn McLearn, Idy Gitleson, Michael Levine, Chris Koyanagi, Neal Halfon, Jack Shonkoff, Stanley Wallack, Connie Horgan, Stephen Fournier, John McDonough, Dennis McCarty, Ann Collard, Connie Williams, Deborah Garnick, Dennis Beatrice, Emily Fenichel, Susan Jo Bumagin, Martha Zeigler, Ron Benham, Elisabeth Schaefer, Gail Havelick, and Marty Cohen for their information sharing, thoughtful comments, and suggestions during the preparation of this report. We appreciate the assistance of Heller School students and staff including Julie Martinez-Ortega, Marie Kearns, Emily Ihara, Linda Cabral, Susan Trofimow, Steven Carreras, Jana Steiger, Clare O'Connor, Terri White, Mary Flynn, and Lisa Andersen in the preparation of this manuscript.

Doreen A. Cavanaugh

John Lippitt

Otrude Moyo

Abbreviations Used in This Book

ACF	Administration for Children and Families
ACYF	Administration on Children, Youth, and Families
ADHD	attention deficit/hyperactivity disorder
AFDC	Aid to Families with Dependent Children
AGI	Adjusted Gross Income
ANCOVA	analysis of covariance
ANOVA	analysis of variance
ASFA	Adoption and Safe Families Act
BBA	Balanced Budget Act
CACFP	Child and Adult Care Food Program
CAPTA	Child Abuse Prevention and Treatment Act
CBCL	Child Behavior Checklist
CCDBG	Child Care and Development Block Grant
CCDF	Child Care and Development Fund
CCDP	Comprehensive Child Development Program
CDA	Child Development Associate
CDF	Children's Defense Fund
CHIP	Children's Health Insurance Program
CISS	Community Integrated Services Systems Grants
CMHC	Community Mental Health Centers
CMHS	Center for Mental Health Services
CMHSBG	Community Mental Health Services Block Grant
CNS	central nervous system
CRT	complex reaction time
CSAT	Center for Substance Abuse Treatment
CSHCN	Children with Special Health Care Needs
CWLA	Child Welfare League of America
DCTC	Dependent Care Tax Credit
DDST	Denver Developmental Screening Test
DHHS	Department of Health and Human Services
DOE	Department of Education
ECCE	Early Childhood Care and Education
EITC	Earned Income Tax Credit
ELBW	extremely low birth weight
EPSDT	Early and Periodic Screening, Diagnosis, and Treatment Program
ESEA	Elementary and Secondary Education Act
FACES	Family and Child Experiences Survey
FAN	Child Mental Health Foundations and Agencies Network
FAPE	Free Appropriate Public Education
FH	family history
FMLA	Family and Medical Leave Act
FPFSA	Family Preservation and Family Support Act
FPL	Federal Poverty Level
FY	Fiscal Year
GAO	General Accounting Office
GPRA	Government Performance and Results Act
HCFA	Health Care Financing Administration
HEDIS	Health Plan Employer Data and Information Set

HMO	Health Maintenance Organization
HRSA	Health Resources and Services Administration
IDEA	Individuals with Disabilities Education Act
IEP	Individual Education Plan
IFSP	Individualized Family Services Plan
IHDP	Infant Health and Development Program
INS	Immigration and Naturalization Service
IQ	intelligence quotient
IRS	Internal Revenue Service
JOBS	Job Opportunities and Basic Skills Training
LBW	low birth weight
LD	learning disability
LEA	Local Educational Authority
MANOVA	multiple analyses of variance
MCH	Maternal and Child Health
MCHB	Maternal and Child Health Bureau
MCHBG	Maternal and Child Health Block Grant
NAHSC	National Association of Homes and Services for Children
NASW	National Association of Social Workers
NCHCANI	National Clearinghouse on Child Abuse and Neglect Information
NEGP	National Education Goals Panel
NIH	National Institutes of Health
NIMH	National Institute of Mental Health
OBRA	Omnibus Budget Reconciliation Act
OR	odds ratio
OSEP	Office of Special Education Programs
OSERS	Office of Special Education and Rehabilitative Services
PCCM	Primary Care Case Management
PKU	Phenylketonuria
PPO	Preferred Provider Organization
PRWORA	Personal Responsibility and Work Opportunity Reconciliation Act
RISC	Risk Index of School Capability
SAPTBG	Substance Abuse Prevention and Treatment Block Grant
SAMHSA	Substance Abuse and Mental Health Services Administration
SD	standard deviation
SES	socioeconomic status
SESS	Starting Early Starting Smart
SSA	Social Security Administration
SSBG	Social Services Block Grant
SSI	Supplemental Security Income
SPRANS	Special Projects of Regional or National Significance
TANF	Temporary Assistance to Needy Families
TEFRA	Tax Equity and Fiscal Responsibility Act
VLBW	very low birth weight
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
WISC	Wechsler Intelligence Scale for Children
WISC-R	Wechsler Intelligence Scale for Children – Revised
WRAT	Wide-Range Achievement Test